

# Fact Sheet



## *For Draft/Proposed Renewal Permitting Action Under 45CSR30 and Title V of the Clean Air Act*

Permit Number: **R30-01300002-2011**

Application Received: August 5, 2010

Plant Identification Number: 013-00002

Permittee: **Dominion Transmission, Inc.**

Facility Name: **Orma Compressor Station**

Mailing Address: 445 West Main Street, Clarksburg, WV 26301

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Physical Location:	Orma, Calhoun County, West Virginia
UTM Coordinates:	492.68 km Easting • 4288.86 km Northing • Zone 17
Directions:	From the intersection of Rt. 33/Rt. 119 West & 16 South at Arnoldsburg take Rt. 16 South 4.7 miles to Orma, turn left onto Euclid/Nicut Road and travel 1.0 mile, turn left onto Crooked Run Road and go 0.1 miles to station on the left.

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### **Facility Description**

Orma Compressor Station is a natural gas transmission facility covered by Standard Industrial Classification (SIC) Code 4922. The station has the potential to operate seven (7) days per week, twenty-four (24) hours per day. The station consists of two (2) 660 HP natural gas fired reciprocating engines, one (1) dehydrator reboiler, one (1) dehydration unit with flare, and eight (8) storage tanks of various sizes.

## Emissions Summary

Plantwide Emissions Summary [Tons per Year]		
Criteria Pollutants	Potential Emissions	2009 Actual Emissions
Carbon Monoxide (CO)	38.4	35.39
Nitrogen Oxides (NO <sub>x</sub> )	259.0	238.55
Particulate Matter (PM <sub>10</sub> )	0.49	0.44
Total Particulate Matter (TSP)	0.49	0.44
Sulfur Dioxide (SO <sub>2</sub> )	0.03	0.03
Volatile Organic Compounds (VOC)	176.6	126.26

*PM<sub>10</sub> is a component of TSP.*

Hazardous Air Pollutants	Potential Emissions	2009 Actual Emissions
Total HAPs	21.37	9.57
Formaldehyde	1.77	1.63
Benzene	3.97	2.90
Toluene	6.37	2.28
Ethylbenzene	0.93	0.01
n-Hexane	1.28	0.68
Xylene	6.31	1.40
Acetaldehyde	0.37	0.34
Acrolein	0.37	0.34

*Some of the above HAPs may be counted as PM or VOCs.*

## Title V Program Applicability Basis

This facility has the potential to emit 259 tons of NO<sub>x</sub> and 176.6 tons of VOC. Due to this facility's potential to emit over 100 tons per year of criteria pollutant, Dominion Transmission, Inc. is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 45CSR30.

## Legal and Factual Basis for Permit Conditions

The State and Federally-enforceable conditions of the Title V Operating Permits are based upon the requirements of the State of West Virginia Operating Permit Rule 45CSR30 for the purposes of Title V of the Federal Clean Air Act and the underlying applicable requirements in other state and federal rules.

This facility has been found to be subject to the following applicable rules:

Federal and State:	45CSR2	Opacity Requirements for boilers
	45CSR6	Open burning prohibited.
	45CSR10	Sulfur requirements for fuel burned
	45CSR11	Standby plans for emergency episodes.
	45CSR13	New Source Construction
	45CSR17	Control fugitive particulate matter
	WV Code § 22-5-4 (a) (14)	The Secretary can request any pertinent information such as annual emission inventory reporting.
	45CSR30	Operating permit requirement.
	40 C.F.R. Part 61	Asbestos inspection and removal
	40 C.F.R. Part 82, Subpart F	Ozone depleting substances
State Only:	40 C.F.R. 63, Subpart ZZZZ	Area Source RICE Standards
	40 C.F.R. 63, Subpart HH	Area Source Natural Gas Production
	45CSR4	No objectionable odors.

Each State and Federally-enforceable condition of the draft Title V Operating Permit references the specific relevant requirements of 45CSR30 or the applicable requirement upon which it is based. Any condition of the draft Title V permit that is enforceable by the State but is not Federally-enforceable is identified in the draft Title V permit as such.

The Secretary's authority to require standards under 40 C.F.R. Part 60 (NSPS), 40 C.F.R. Part 61 (NESHAPs), and 40 C.F.R. Part 63 (NESHAPs MACT) is provided in West Virginia Code §§ 22-5-1 *et seq.*, 45CSR16, 45CSR34 and 45CSR30.

### Active Permits/Consent Orders

Permit or Consent Order Number	Date of Issuance	Permit Determinations or Amendments That Affect the Permit ( <i>if any</i> )
N/A		

Conditions from this facility's Rule 13 permit(s) governing construction-related specifications and timing requirements will not be included in the Title V Operating Permit but will remain independently enforceable under the applicable Rule 13 permit(s). All other conditions from this facility's Rule 13 permit(s) governing the source's operation and compliance have been incorporated into this Title V permit in accordance with the "General Requirement Comparison Table B" which may be downloaded from DAQ's website.

### Determinations and Justifications

#### New Boilerplate Language

In addition to formatting and other minor changes, the following boilerplate changes were made from the previous Title V permit (R30-01300002-2006):

- Condition 2.1.4 was added to clarify "rolling yearly total"

- Conditions 3.1.1 and 3.1.2 were updated with revised boilerplate language for open burning under 45CSR6.
- Condition 3.1.3 was updated with revised language pertaining to asbestos under 40CFR§61.145(b) and the citation was revised from 45CSR15 to 45CSR34. 45CSR15 was repealed.
- Conditions 3.5.3 and 3.5.5. were revised to address electronic submittal of the annual compliance certification to the US EPA.
- Condition 3.3.1.d was added to address new stack test reporting boilerplate.

#### **Changes to facility wide monitoring requirements of Section 3.2.**

- Condition 3.2.1, which pertains to opacity monitoring with respect to the flare and a 20% opacity requirement for incinerators from 45CSR6 was moved to section 4 since this was the specific section incorporating all flare provisions. The language was also revised slightly to be specific to the flare and to add a few clarifications.
- Condition 3.2.2 was moved to 3.2.1 and 3.2.3. was moved up to 3.2.2. Additionally, the frequency of sampling for sulphur and hydrogen sulphide was decreased from annually to once per permit term (every five years). The writer reduced the sampling frequency due to a significant compliance margin observed within the historic sampling records.

#### **Consolidation of sections 4 and 5.**

Since, the previous section 4 contained only one opacity requirement from 45CSR2 with no associated monitoring, recordkeeping or reporting because of a capacity exemption, it was determined by the writer that this equipment (dehy reboiler) was also related to the equipment covered within the next section of the permit so, the two sections were combined within a new section 4, which covers all dehydrator requirements.

#### **Revision of 5.1.5 and move to 4.1.6.**

This condition, to keep facility wide emissions of HAP below major source thresholds, was previously incorporated in a more general form. However, as it's currently proposed, it elaborates on the specific thresholds of 10 tons/yr of any individual HAP and 25 tpy of aggregate HAPs. Additionally, a reference to associated monitoring and testing was incorporated to clarify how compliance shall be determined.

#### **New conditions 4.1.7 and 4.1.8.**

4.1.7 was added to address the "area source" 40 C.F.R. 63, Subpart HH applicability as well as general standards and exemptions. 4.1.8 was added to clarify the timing of which requirement would apply if the exemption threshold of 1 tpy benzene is exceeded.

#### **Revision of Monitoring Condition 5.2.1. and relocation to 4.2.1.**

The dehydrator monitoring language was made more specific and reference ties were added to the underlying requirements that necessitate this monitoring provision. Basically, the monitoring language was further elaborated to address questionable points that have arose in past implementation of this language as well as to emphasize its necessity in order to support the source's minor HAP status in accordance with 40 C.F.R. 63, Subpart HH as well as the area source exemption from the control requirements, conditions 4.1.6 and 4.1.7 respectively.

#### **New condition 4.2.2.**

This monitoring is only new to this section and actually corresponds to that which was previously incorporated within the facility wide condition 3.2.1 referenced above.

#### **Revision of testing provision 5.3.1 and relocation to 4.3.1**

This condition maintains the existing specifics related to testing of the wet natural gas stream, but eliminates the need to test within 180 days of permit issuance. This additional testing event was determined to not be necessary based on the compliance margin demonstrated during the testing conducted over the last permit term. More specifically, emissions from a 2009 report estimated emissions of benzene to be 0.70 tpy, where the threshold is recognized as 1 tpy benzene and the overall total HAPs was estimated to be 6.17 tpy, where the threshold is recognized as 25 tpy. The highest individual HAP was listed as toluene at 2.41 tpy, where the threshold is recognized as 10 tpy of any individual HAP.

#### **New testing provision 4.3.2.**

This condition incorporates the specific testing and monitoring requirements of the area source GACT in accordance with 40 C.F.R. 63, subpart HH for natural gas production facilities. The generality of this requirement is why the more detailed monitoring of 4.2.1 is being proposed. Therefore, streamlining language was added to note that compliance with this federal requirement would be demonstrated by complying with the monitoring of 4.2.1 and testing of 4.3.1.

#### **Revision of recordkeeping provision 5.4.1 and relocation to 4.4.1**

The recordkeeping requirement is basically unchanged with the only notable difference appearing with respect to the permit conditions that are cited as drivers for keeping these visible emission (VE) records. One other slight change was the removal of text, which specified that weather conditions should also be part of the record. The writer realized that this is part of the standard procedure under Method 9 reporting so, it goes unsaid.

#### **New recordkeeping condition 4.4.2.**

This requirement was designed to encompass and keep all supporting monitoring and testing data in a way that tabulates annual emission estimates for the uncontrolled TEG dehydration column. This recordkeeping requirement provides a means of justifying compliance with minor source status for HAPs as well as the 1 tpy benzene exemption for “area sources” within 40 C.F.R. 63, subpart HH. As a result, streamlining language was also incorporated to reflect this fact.

#### **Revision of 5.5.2 and relocation to 4.5.2.**

This condition was revised to incorporate company comments from a previous permit related to coinciding the reporting dates of annual emission inventory with the compliance report specific to the TEG dehydration unit. The reporting language now requires an annual average emissions estimate instead of a PTE estimate. Additionally, a custody transfer point was defined, for clarity, as the point where the gas enters into a natural gas transmission and/or storage pipeline (as referenced in 40 C.F.R. 63, Subpart HH).

#### **New Requirements incorporated within section 5.0**

##### **40 CFR 63, Subpart ZZZZ RICE MACT Applicability**

The two engines (EN01 and EN02) are existing spark-ignition (SI) two-stroke lean burn (2SLB) Cooper GMXE-8 Reciprocating Engines/Integral Compressors that combust pipeline quality natural gas and are rated at 660 hp. As stated below, the engines meet the definition for reciprocating internal combustion engines (RICE) according to 40 CFR § 63.6685(a):

Since this facility is not a major source of HAPS, the 40 C.F.R. 63, subpart ZZZZ area source requirements apply. RICE within the horsepower range for the two engines fit into the 2SLB engines greater than 500 hp category as established by the regulation.

The engines are subject to the maintenance requirements (every 4,320 hours change oil/filter, inspect spark plugs, and inspect hoses/belts).

According to the RICE Summary Table of requirements provided by the EPA (<http://www.epa.gov/ttn/atw/rice/ricepg.html>), none of the units have testing, notification, or reporting requirements under Subpart ZZZZ. The only applicable RICE MACT requirements are:

- 40 CFR § 63.6603: Emission Limitations
- 40 CFR § 63.6605: Continuous Compliance
- 40 CFR §§ 63.6625 (e), (h), and (i): Monitoring Requirements
- 40 CFR § 63.6640: Continuous Compliance
- 40 CFR § 63.6655: Recordkeeping Requirements
- 40 CFR § 63.6665: General Provisions

### **Non-Applicability Determinations**

The following requirements have been determined not to be applicable to the subject facility due to the following:

40 CFR 64-Compliance Assurance Monitoring. This is the second permit renewal for this facility. At the time of the first renewal, CAM was determined not to be applicable to the sources at this facility. Therefore, since there have been no changes to the emission units at the facility a CAM applicability determination is not required.

40 C.F.R § 60.18 – Flare is used only to control the odor. Even without flare the facility is not a major source of HAPs. Therefore, 40 C.F.R § 60.18 is not applicable.

### **Request for Variances or Alternatives**

None

### **Insignificant Activities**

Insignificant emission unit(s) and activities are identified in the Title V application.

### **Comment Period**

Beginning Date: June 16, 2011

Ending Date: July 18, 2011

All written comments should be addressed to the following individual and office:

Jesse Hanshaw, P.E.  
Title V Permit Writer  
West Virginia Department of Environmental Protection  
Division of Air Quality  
601 57<sup>th</sup> Street SE  
Charleston, WV 25304

### **Procedure for Requesting Public Hearing**

During the public comment period, any interested person may submit written comments on the draft permit and may request a public hearing, if no public hearing has already been scheduled. A request for public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. The Secretary shall grant such a request for a hearing if he/she concludes that a public hearing is appropriate. Any public hearing shall be held in the general area in which the facility is located.

### **Point of Contact**

Jesse Hanshaw, P.E.  
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Division of Air Quality  
601 57<sup>th</sup> Street SE  
Charleston, WV 25304  
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### **Response to Comments (Statement of Basis)**